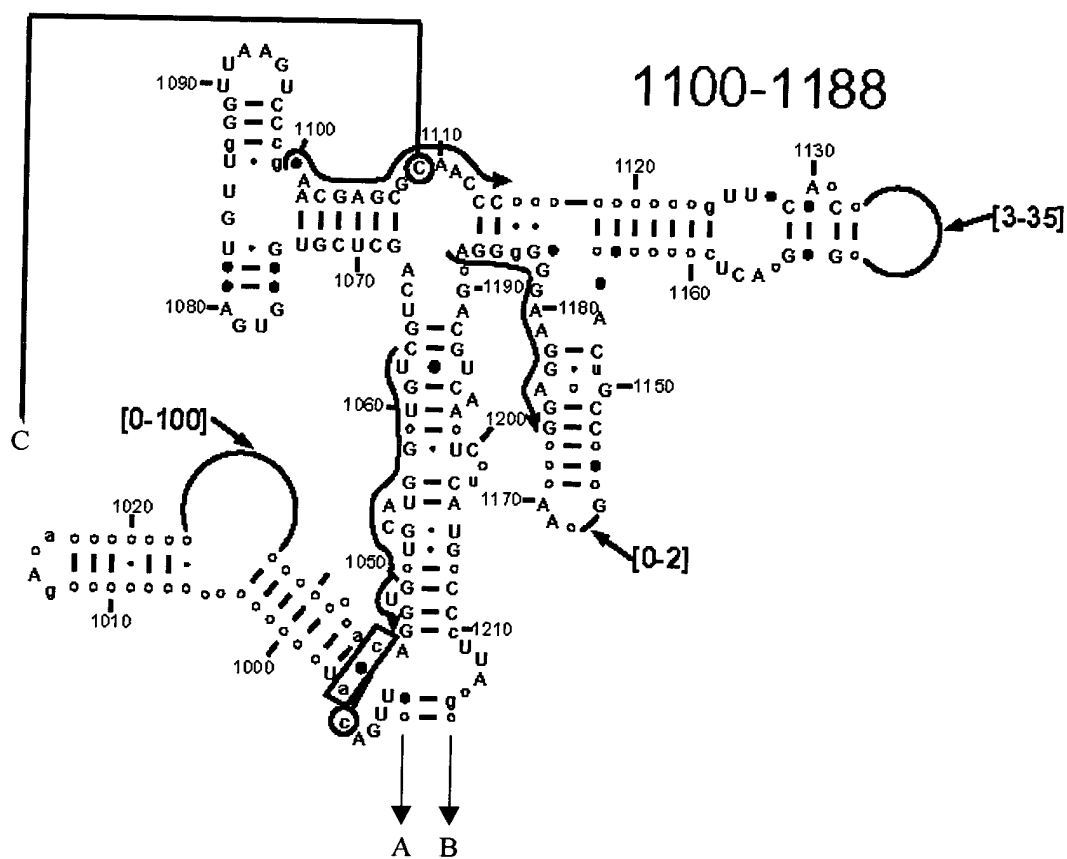


FIG. 1A-1



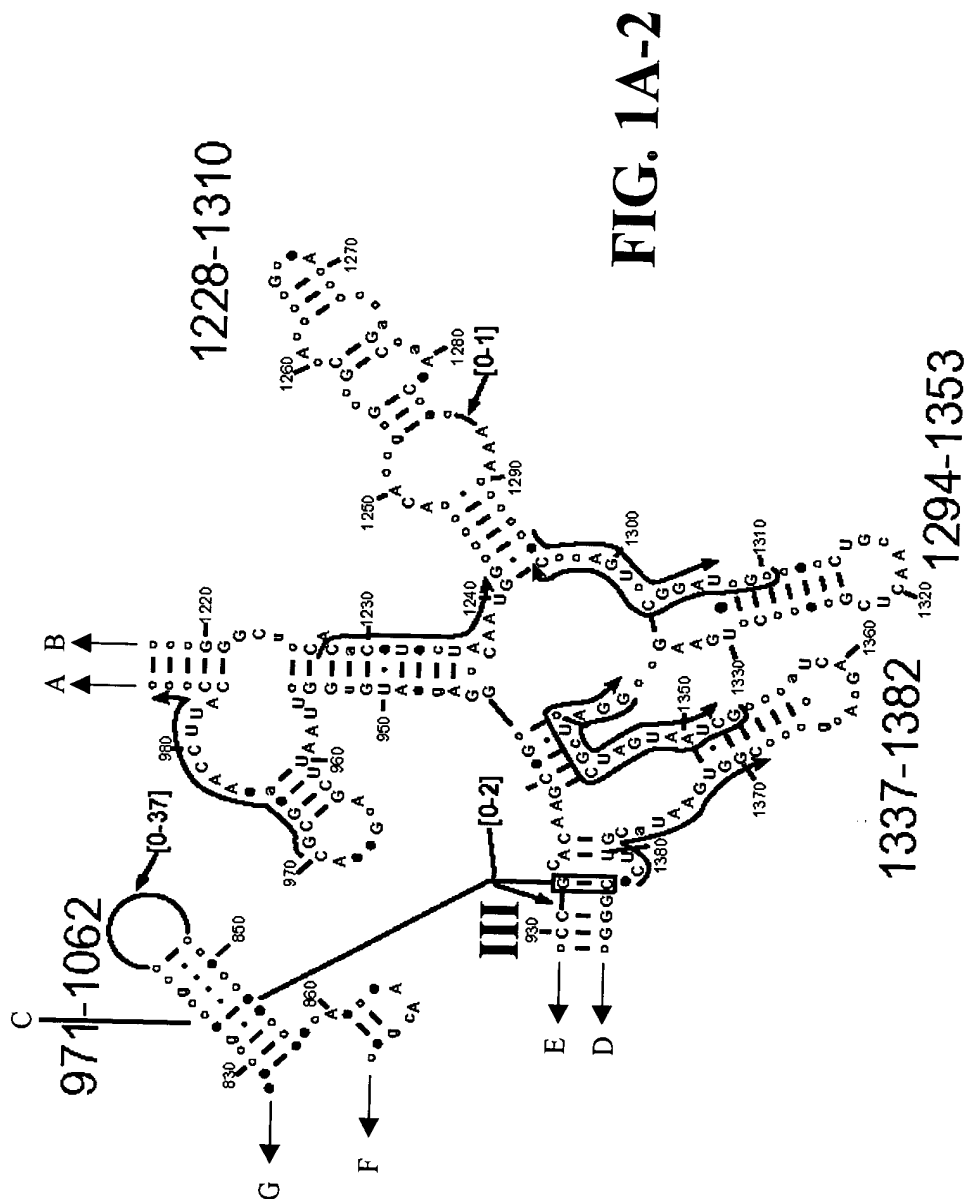
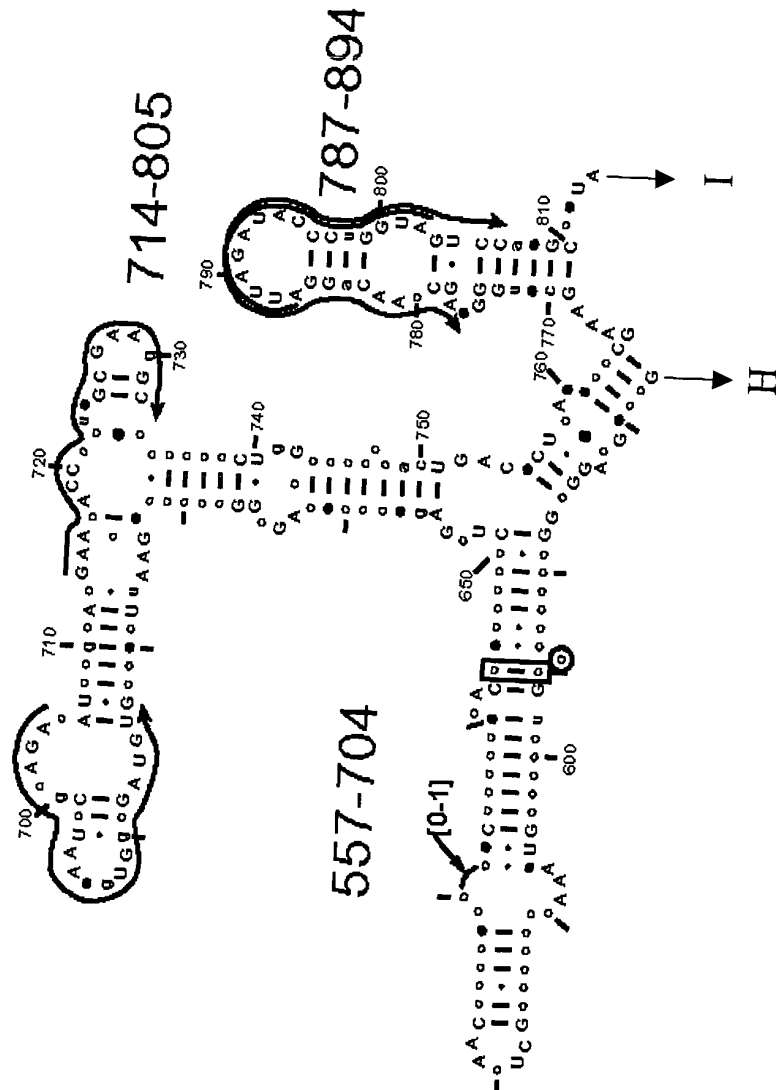
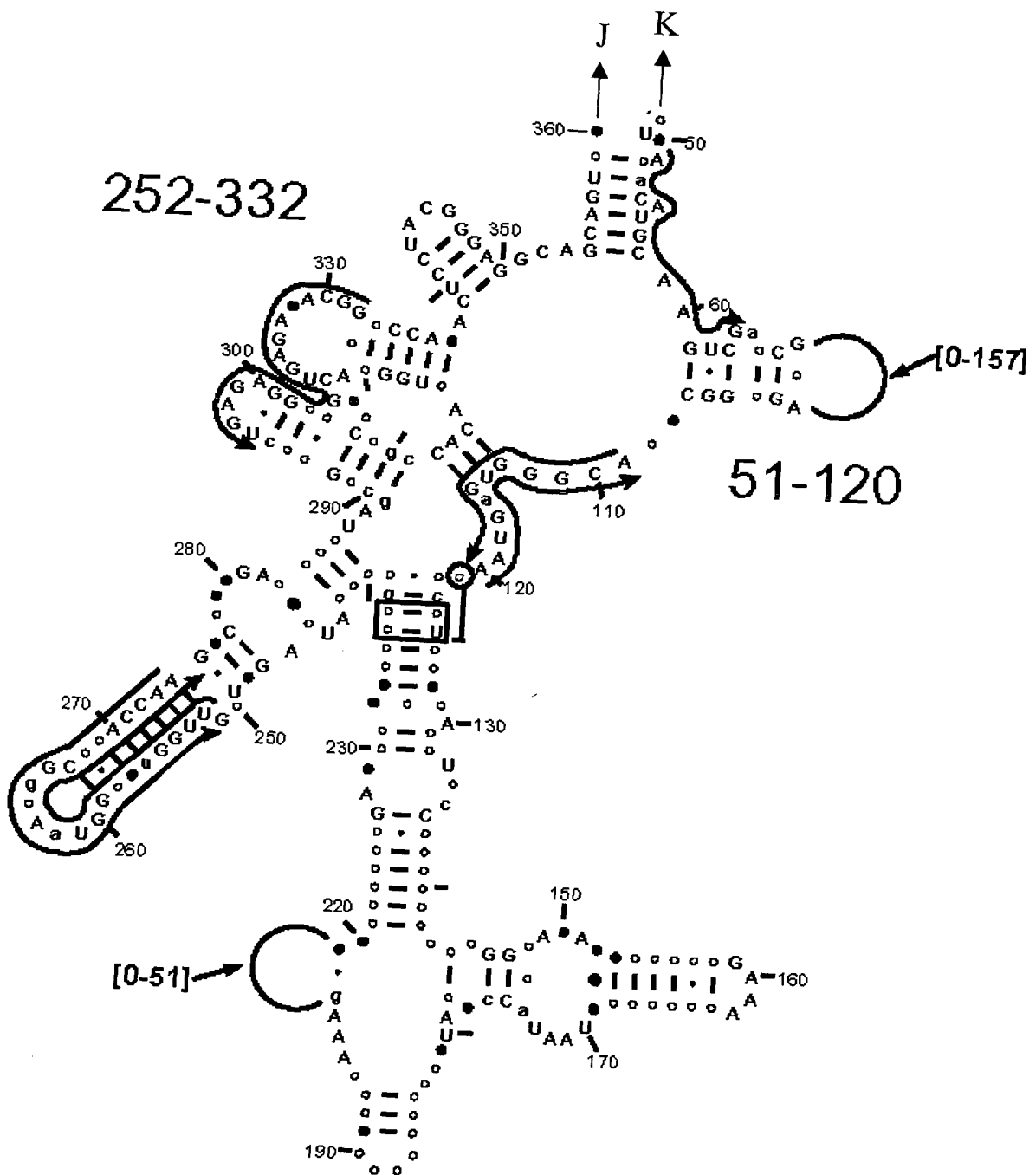


FIG. 1A-3



252-332



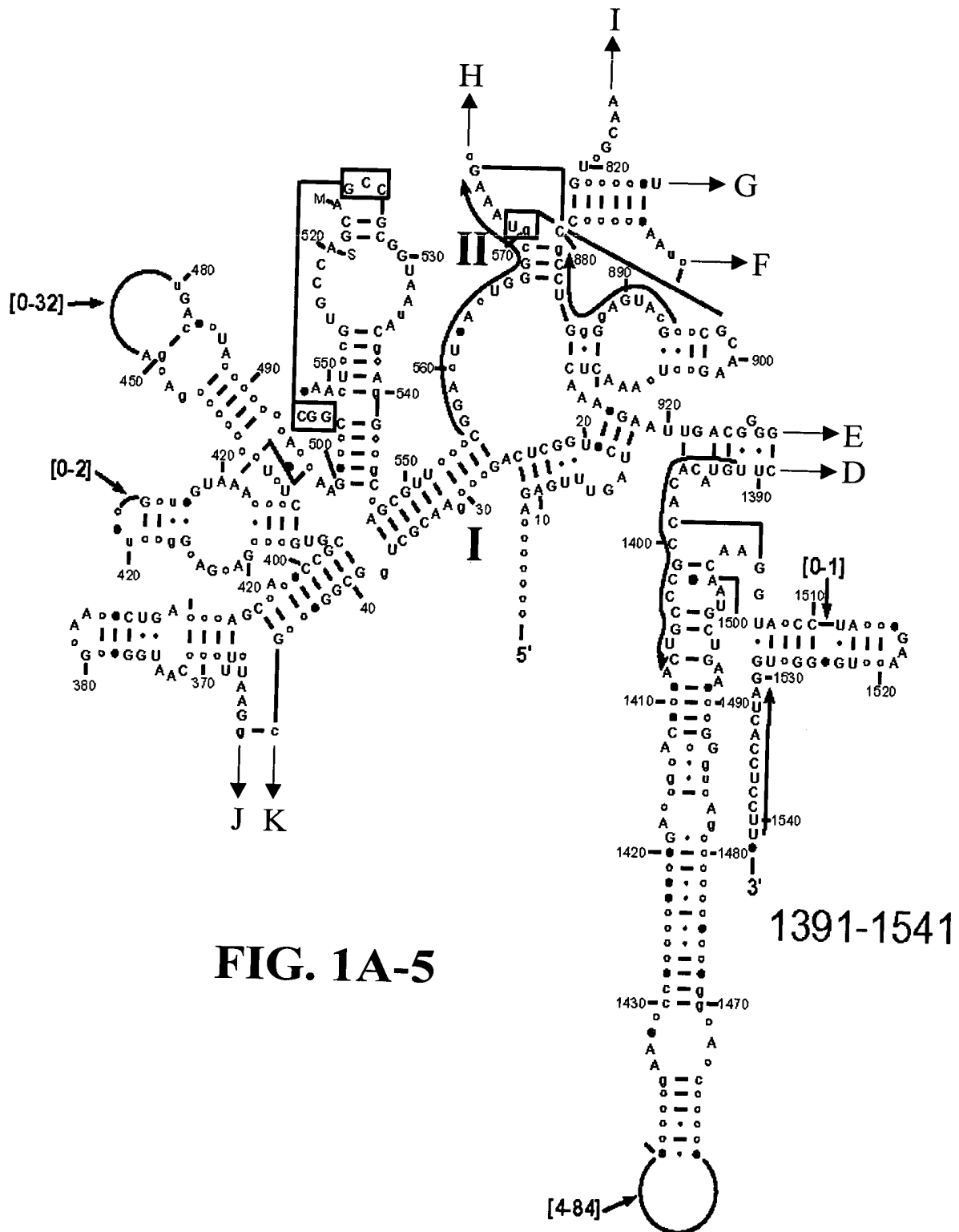


FIG. 1B

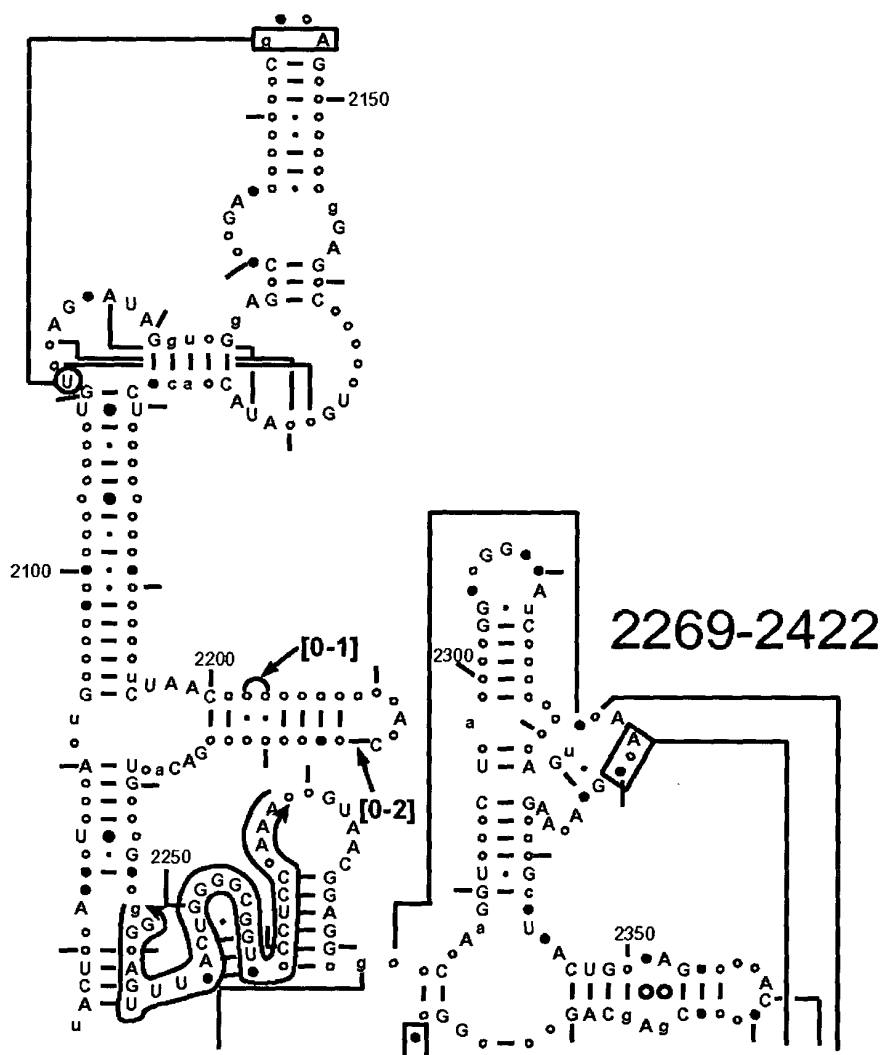


FIG. 1C

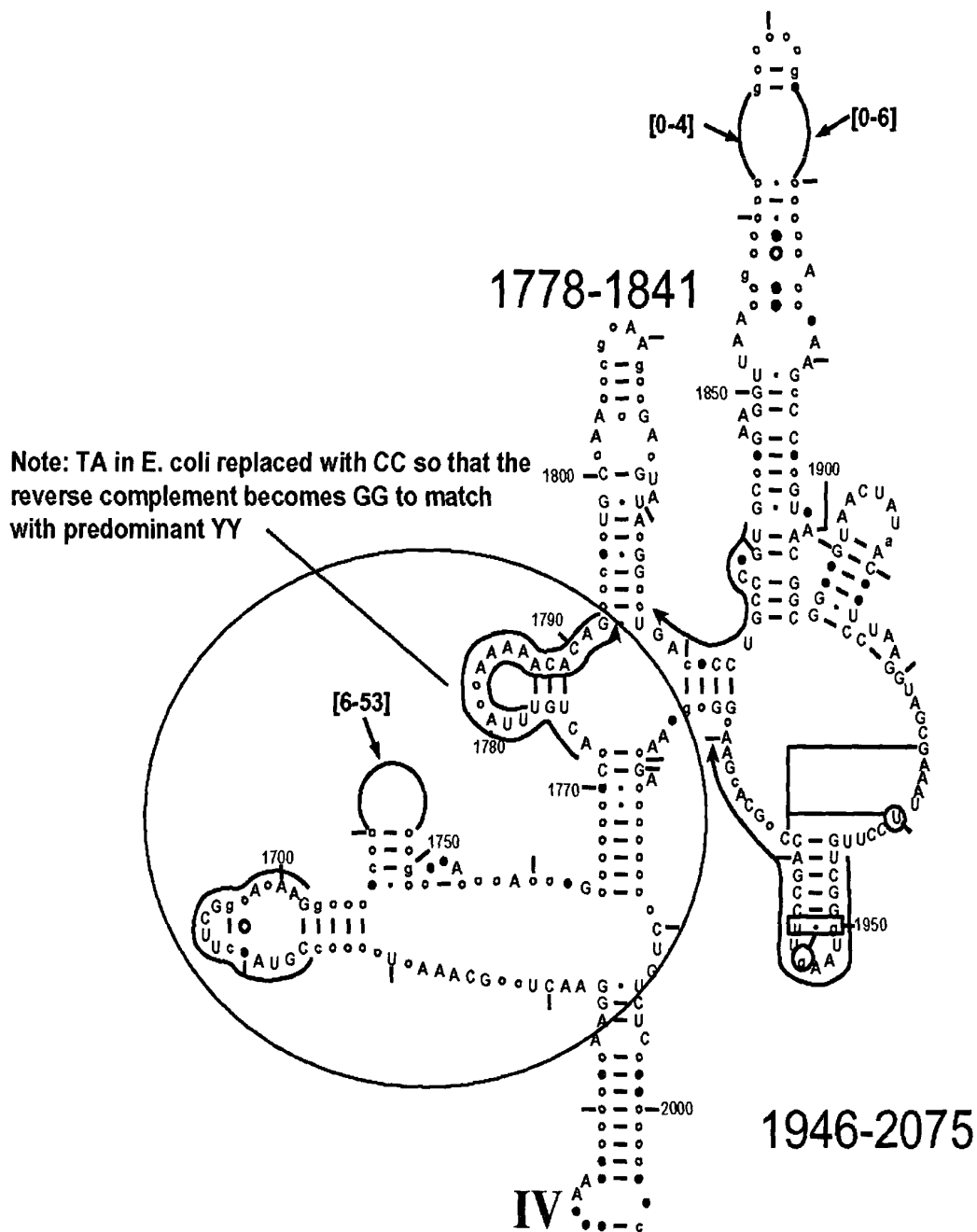


FIG. 1D

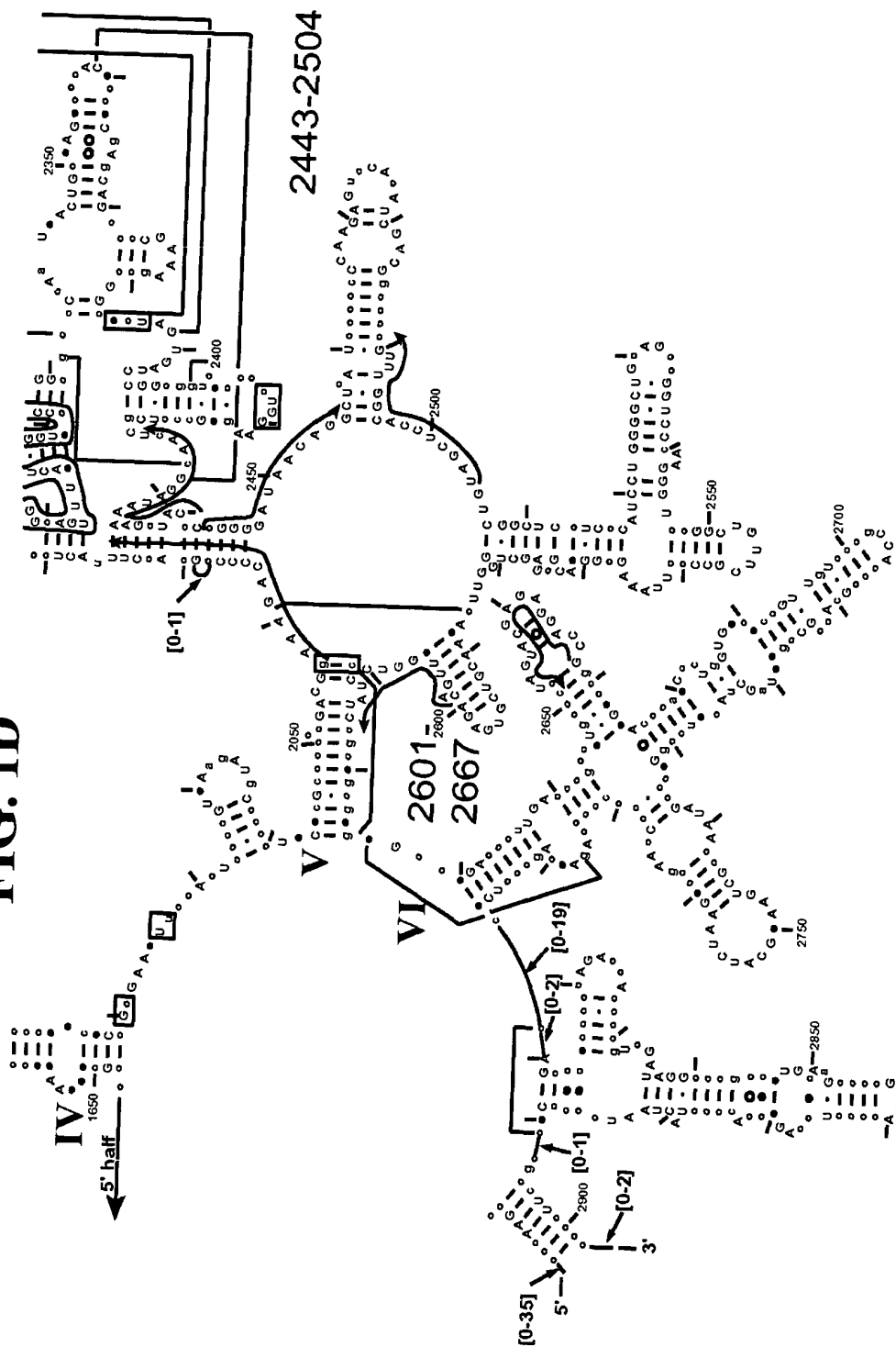


FIG. 1E

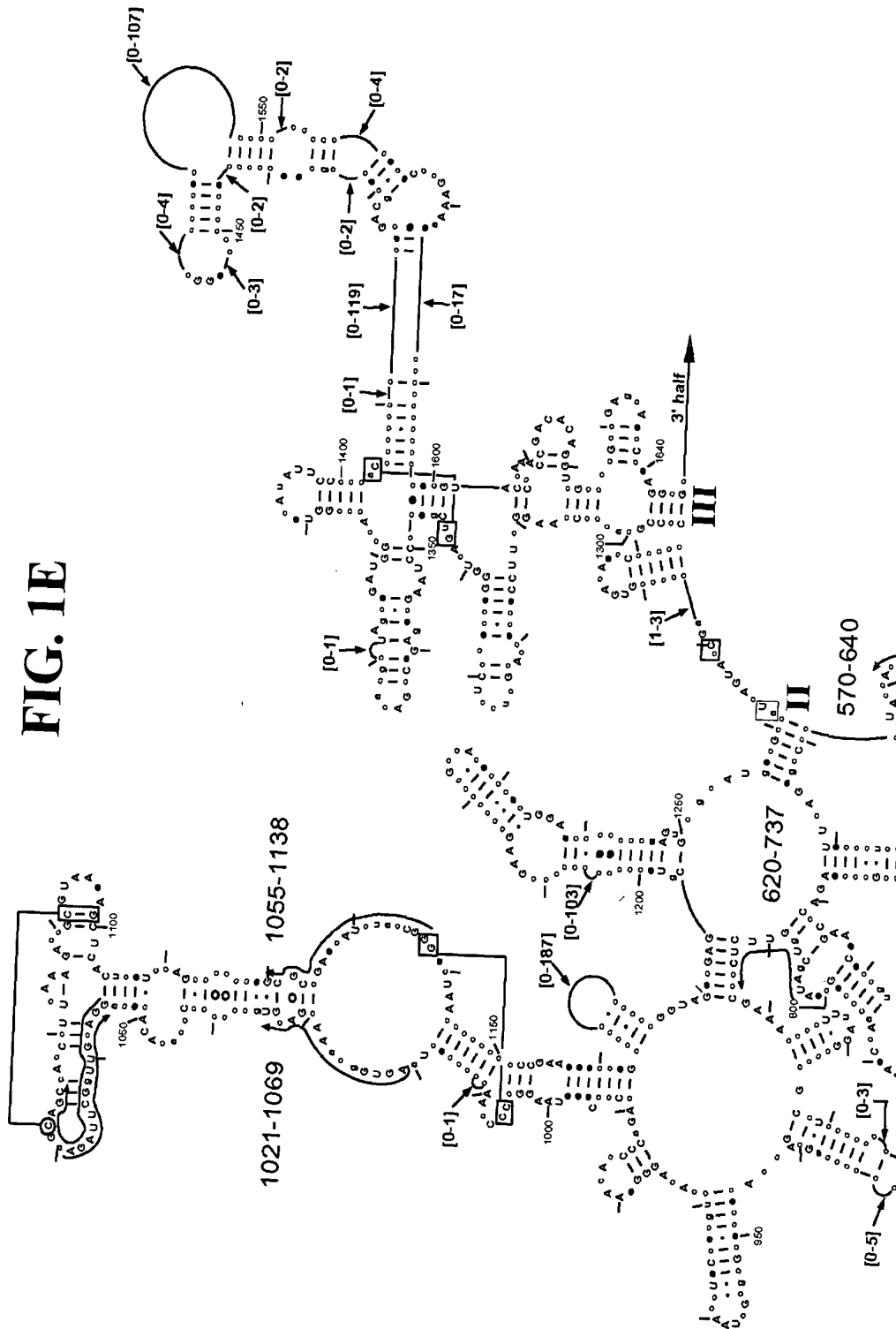


FIG. 1F

FIG. 1G

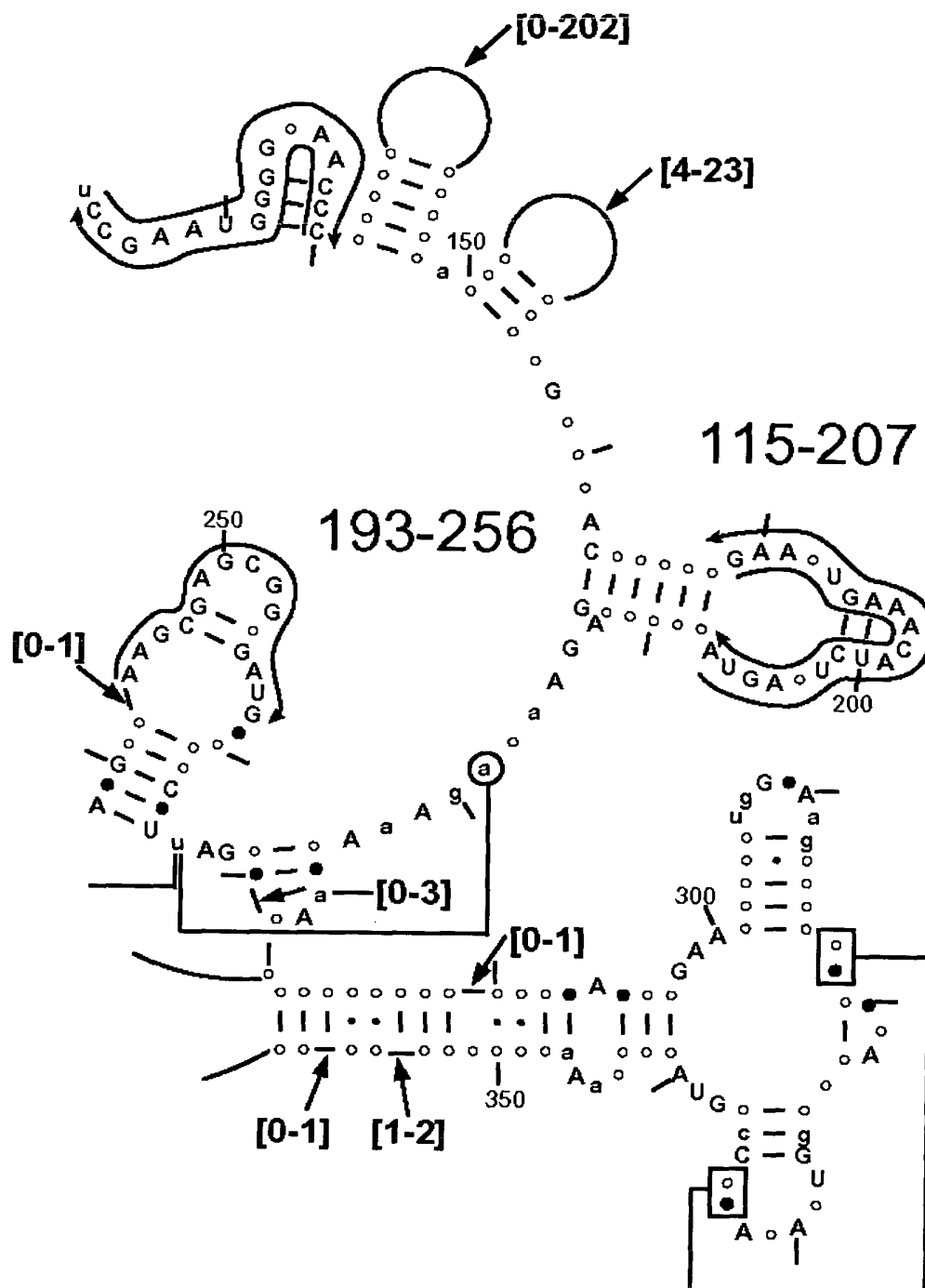
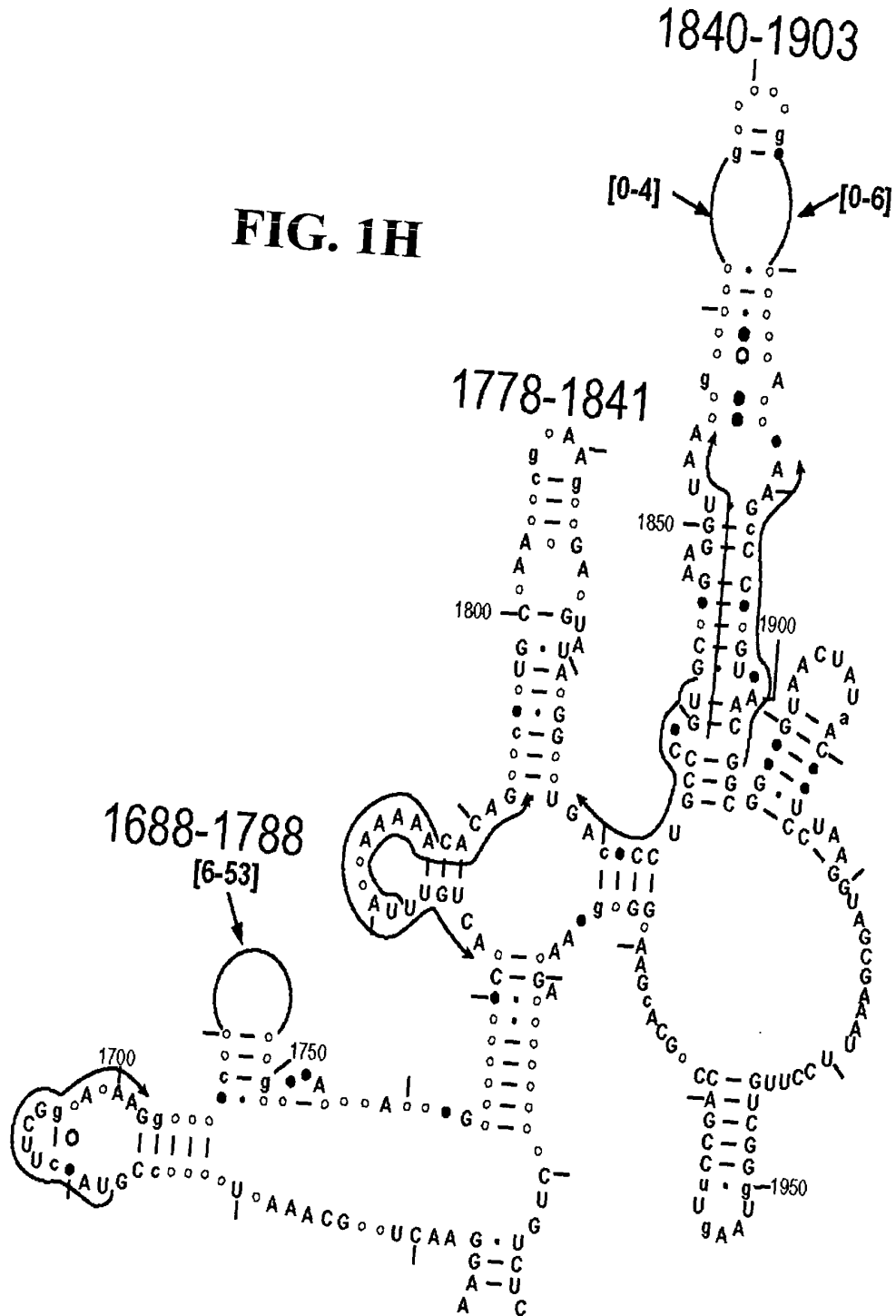


FIG. 1H



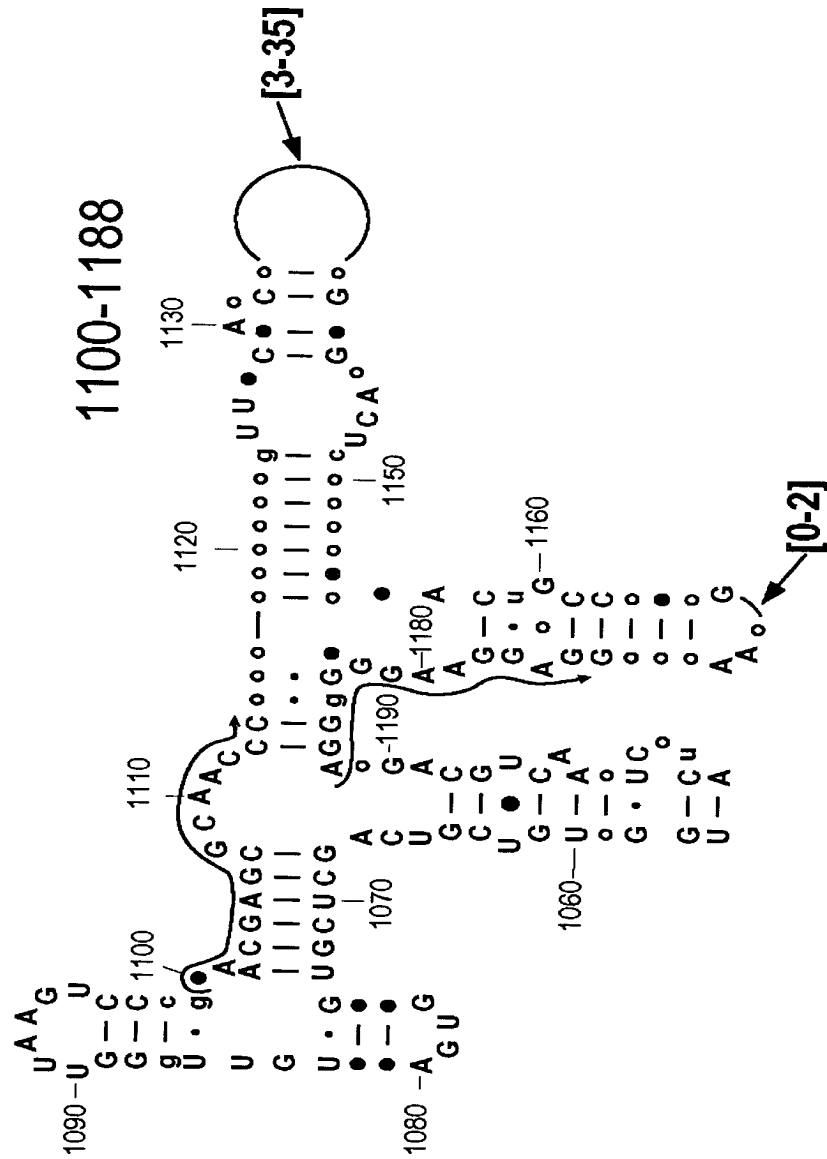


FIG. 3

FIG. 4

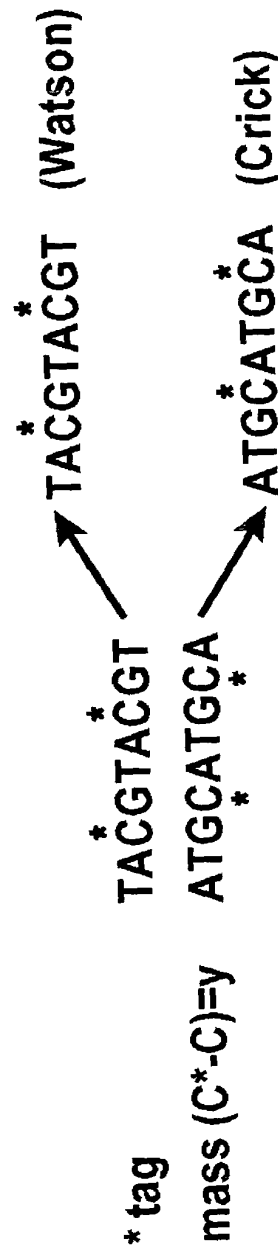
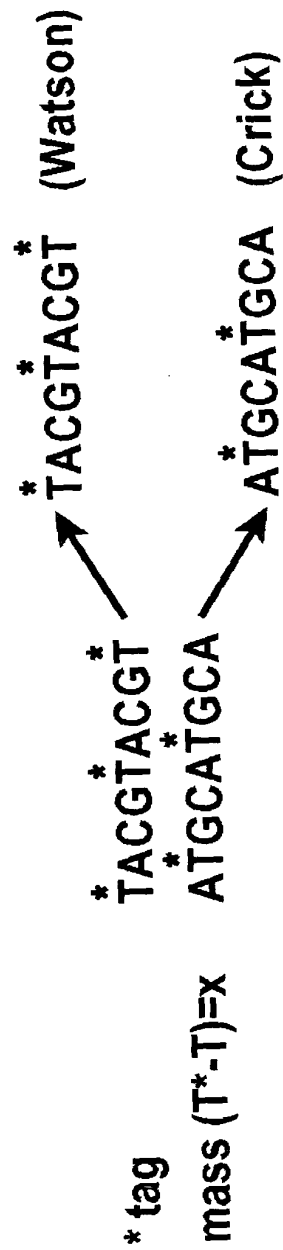


FIG. 5

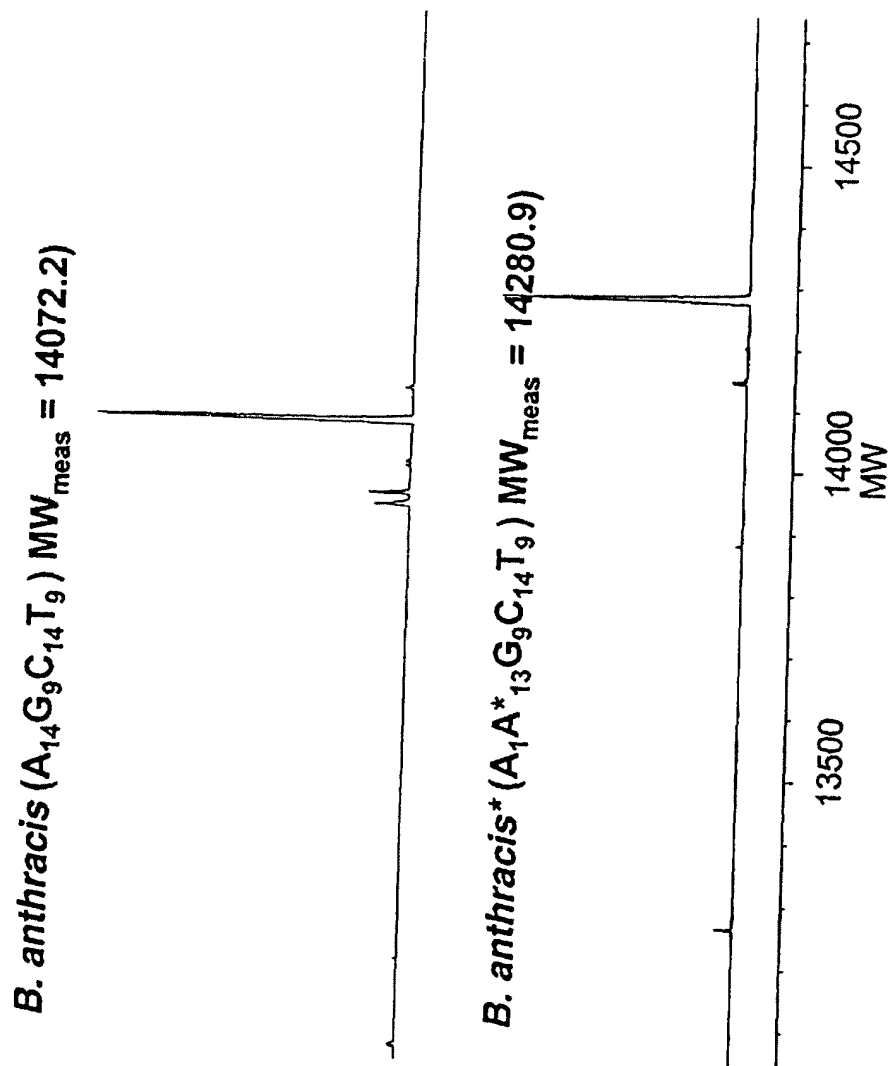


FIG. 6

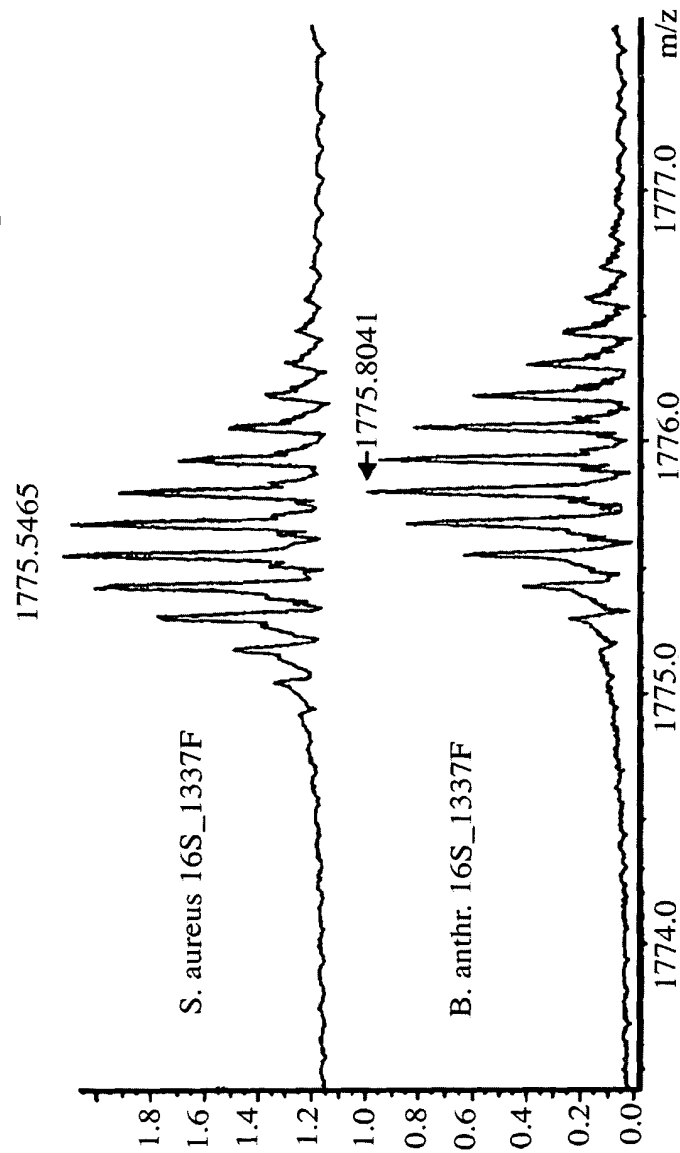


FIG. 7

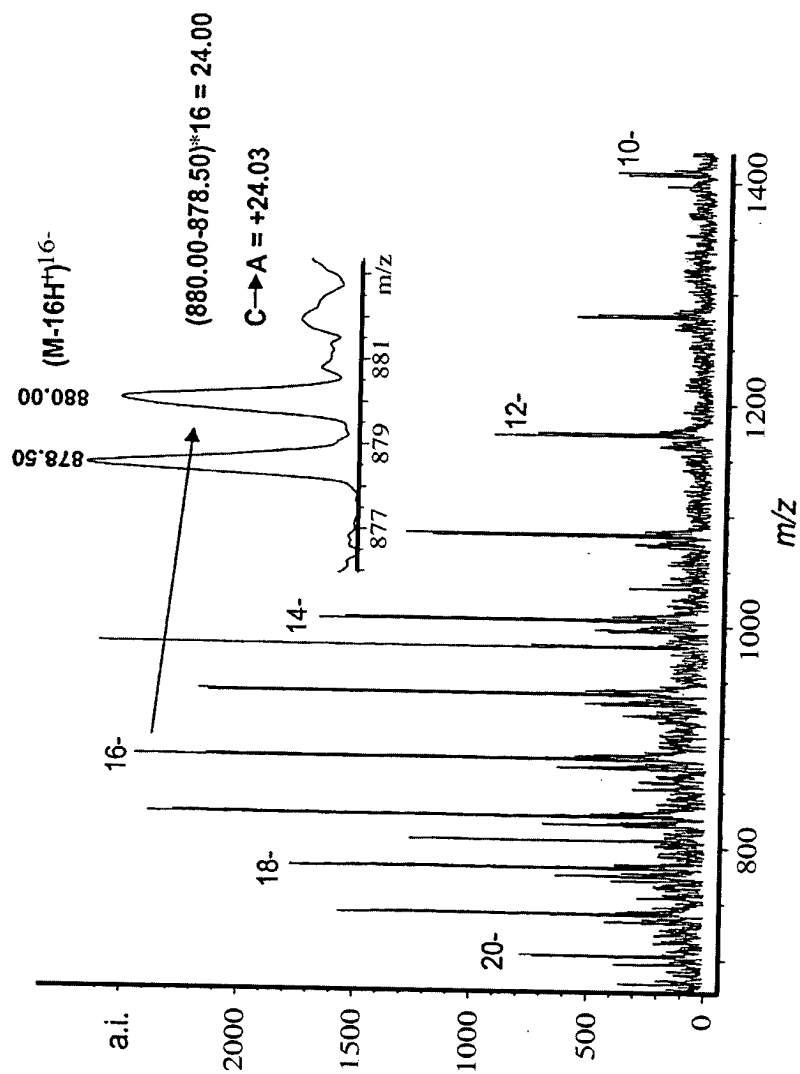
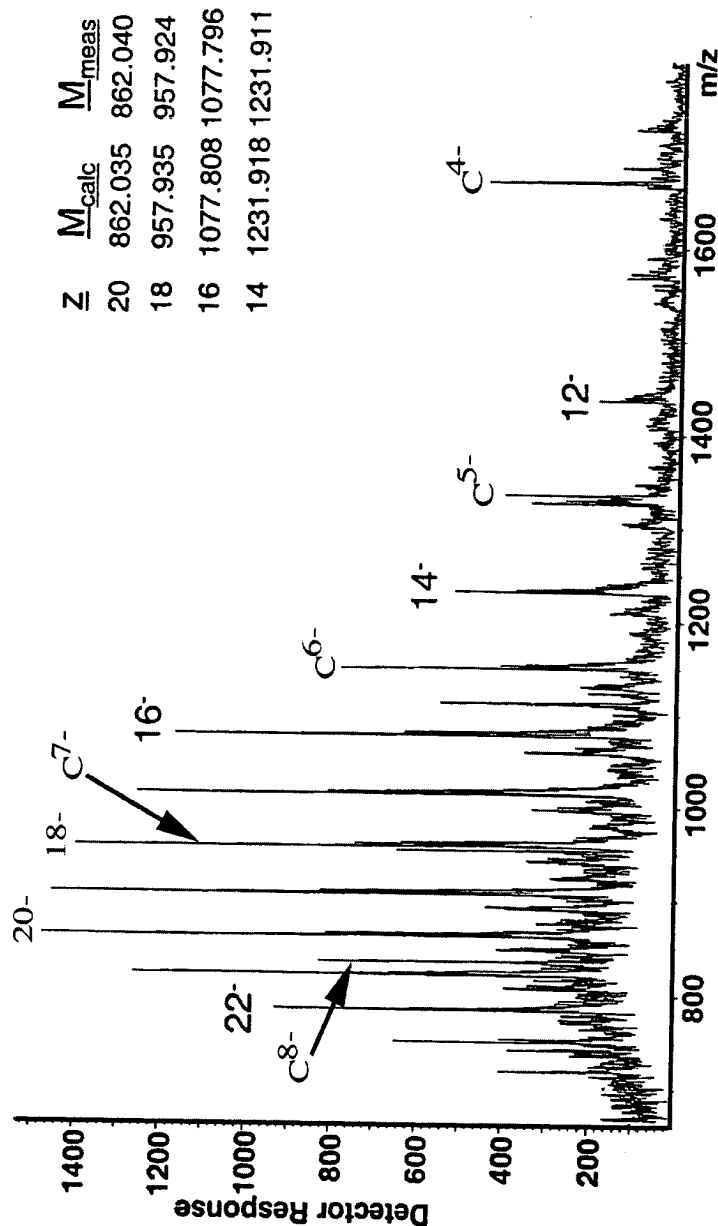


FIG. 8

ESI-TOF MS of sspE 56mer + Calibrant



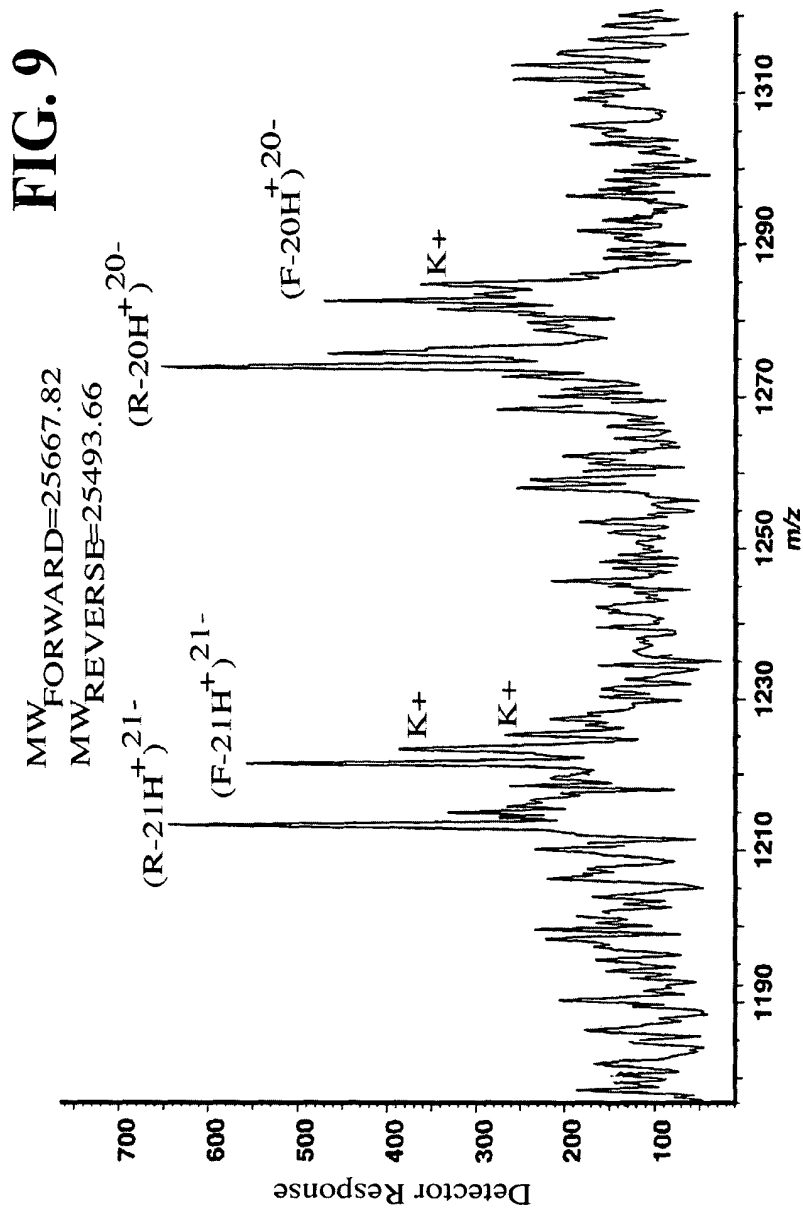


FIG. 10

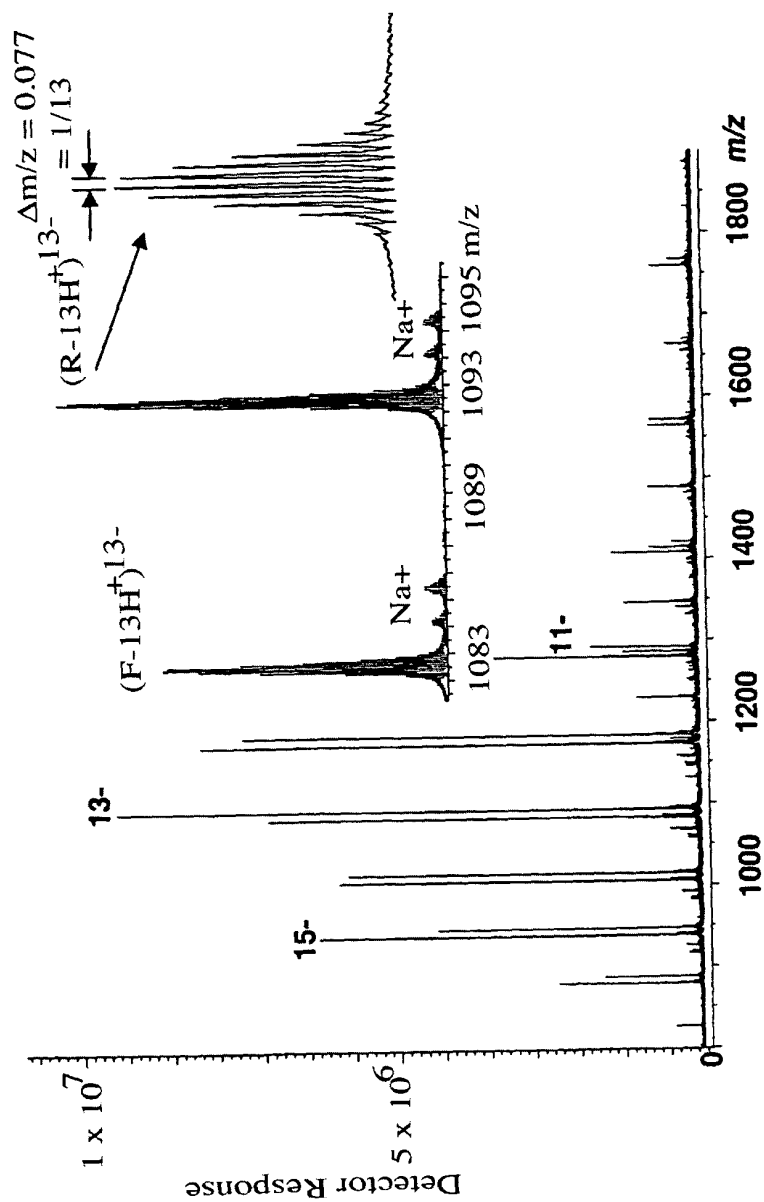
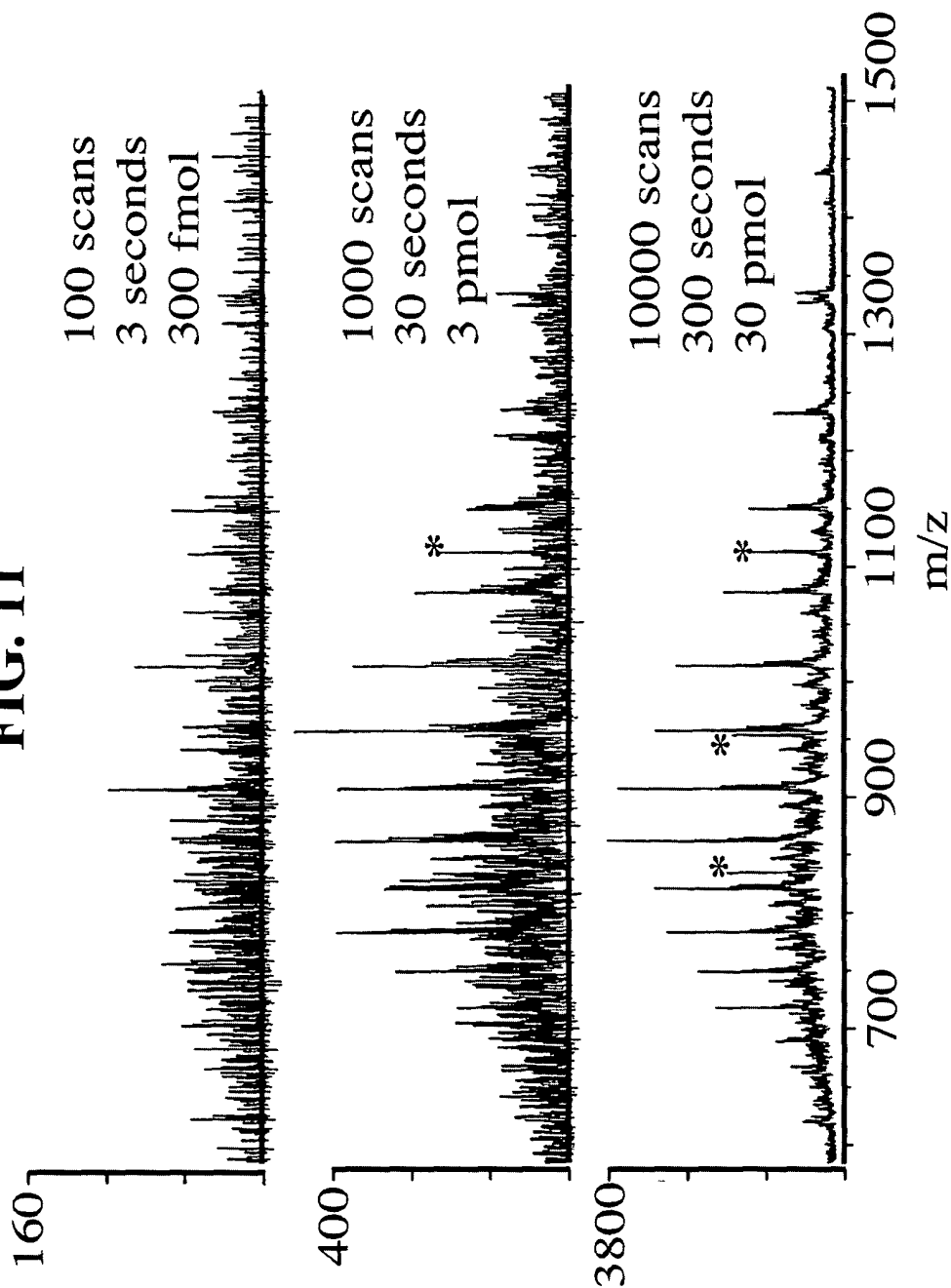


FIG. 11



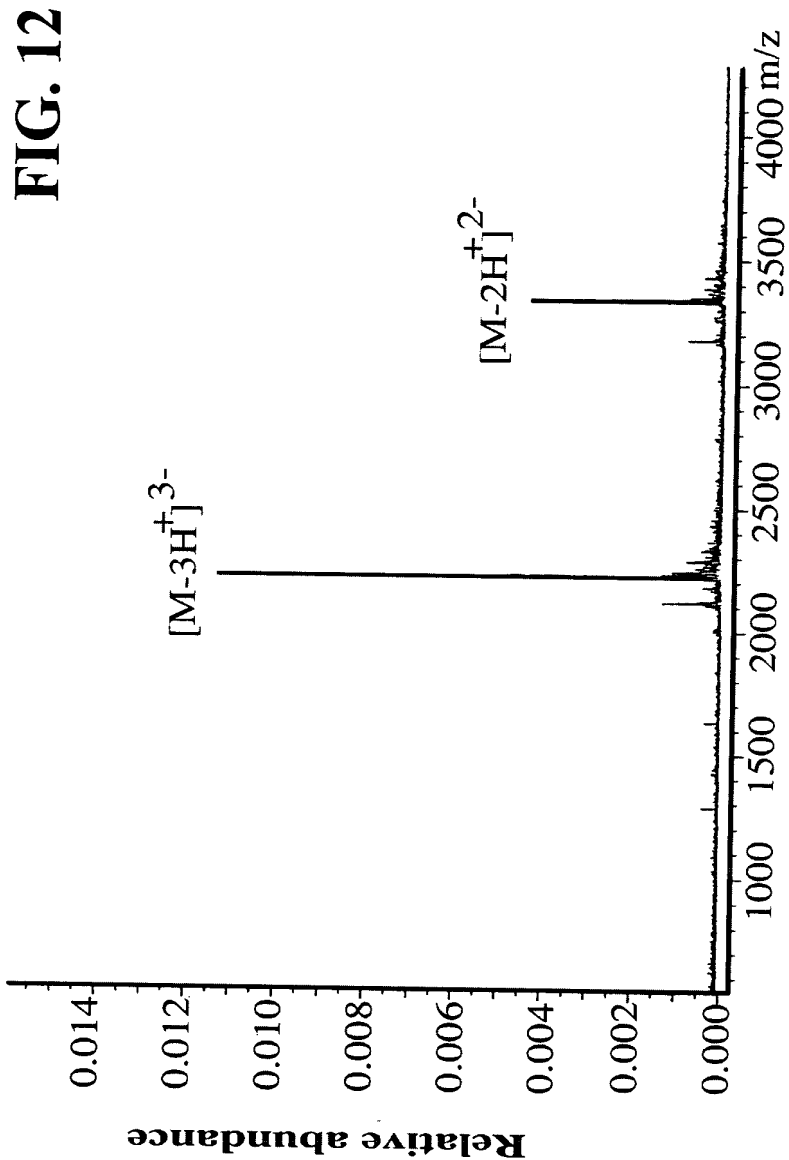


FIG. 13

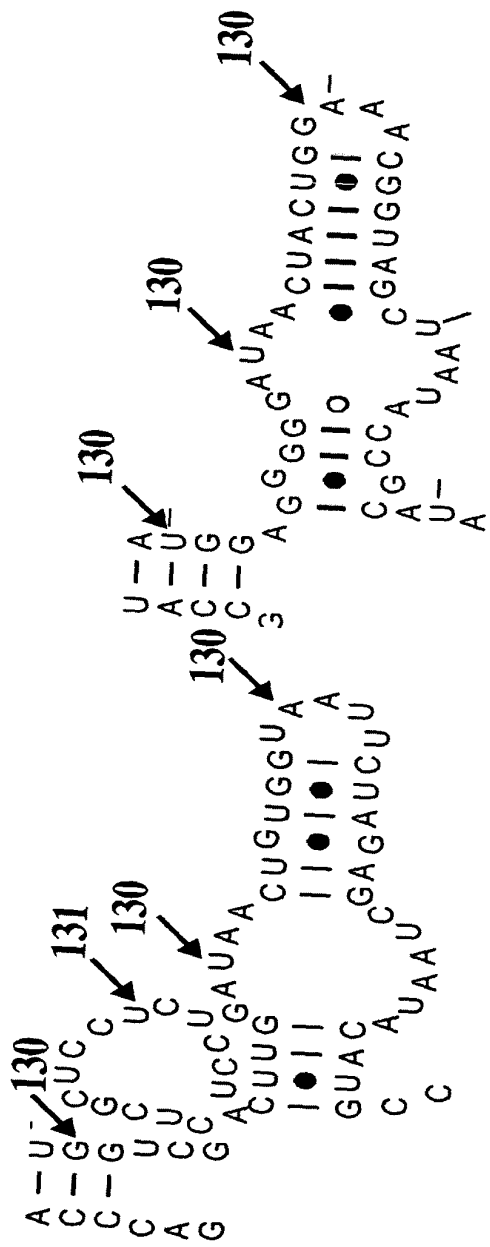
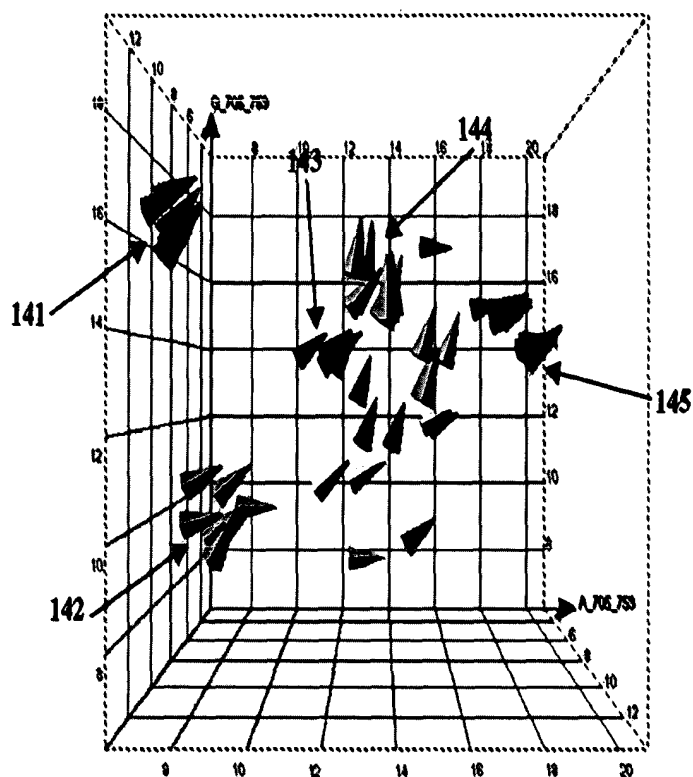


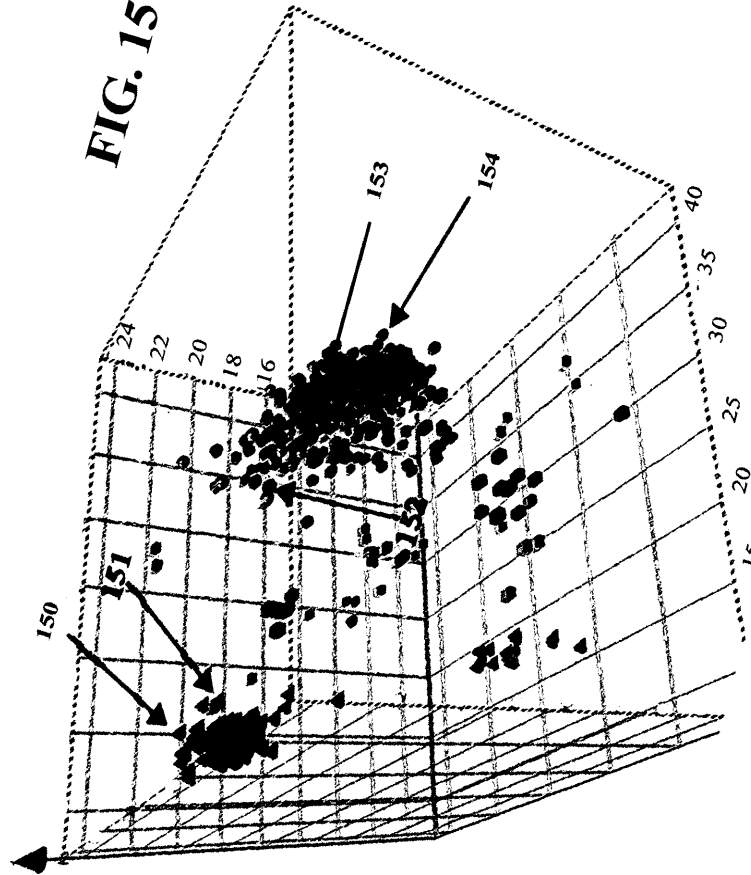
FIG. 14



Picornav RdRp 705-759

- | | | | |
|------------------------------|--------------------------------|-----------------------|----------------------|
| ■ Encephalomyocarditis virus | □ Foot-and-mouth disease virus | ■ Polio | □ Rhinovirus |
| □ Enterovirus | ■ Hepatitis A virus | ■ Porcine enterovirus | ■ Simian Hepatitis A |

FIG. 15

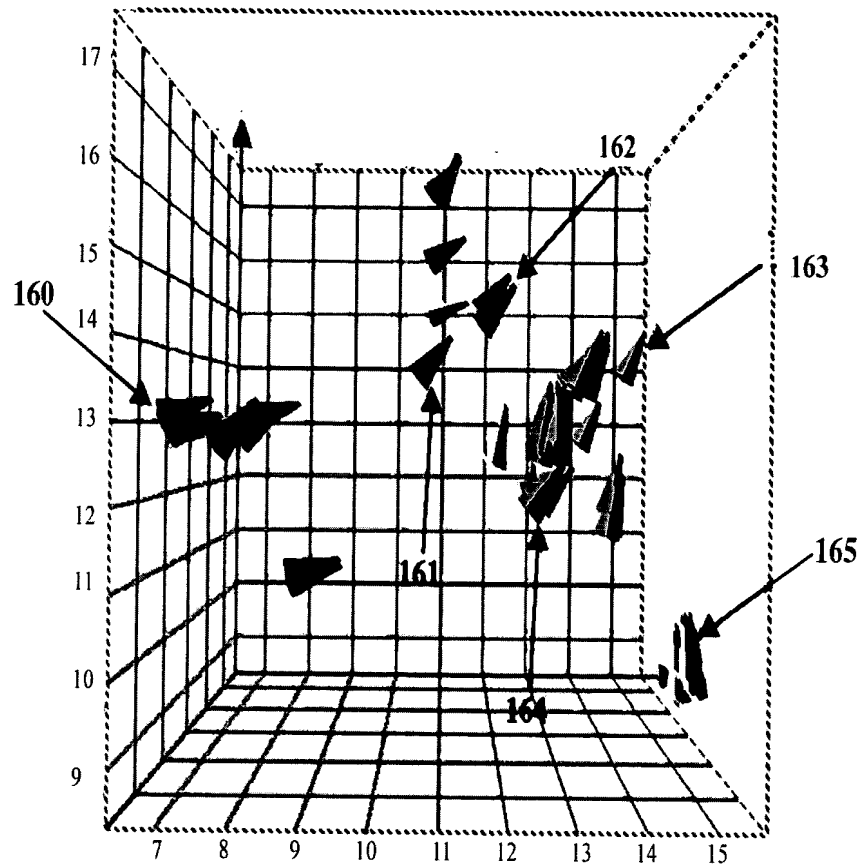


Immunodeficiency viruses

- Bovine IV
- HUMAN IV type 2
- Human IV type 1
- Simian IV
- Feline IV
- Chimpanzee IV

- Hepatitis viruses**
- ▲ Human Hepatitis B
 - △ Snow Goose Hepatitis B
 - △ Duck Hepatitis B
 - ▲ Woodchuck Hepatitis B
 - △ Woodchuck Hepatitis 7

FIG. 16



Flavi RdRp 2453-2493

- | | | |
|---------------------|------------------------------------|---------------------------------|
| ■ Dengue virus type | ■ Japanese encephalitis virus | ■ Tick-borne encephalitis virus |
| □ Dengue virus type | ■ Kunjin virus | ■ West Nile virus |
| ■ Dengue virus type | □ Murray valley encephalitis virus | □ Yellow fever virus |

FIG. 17

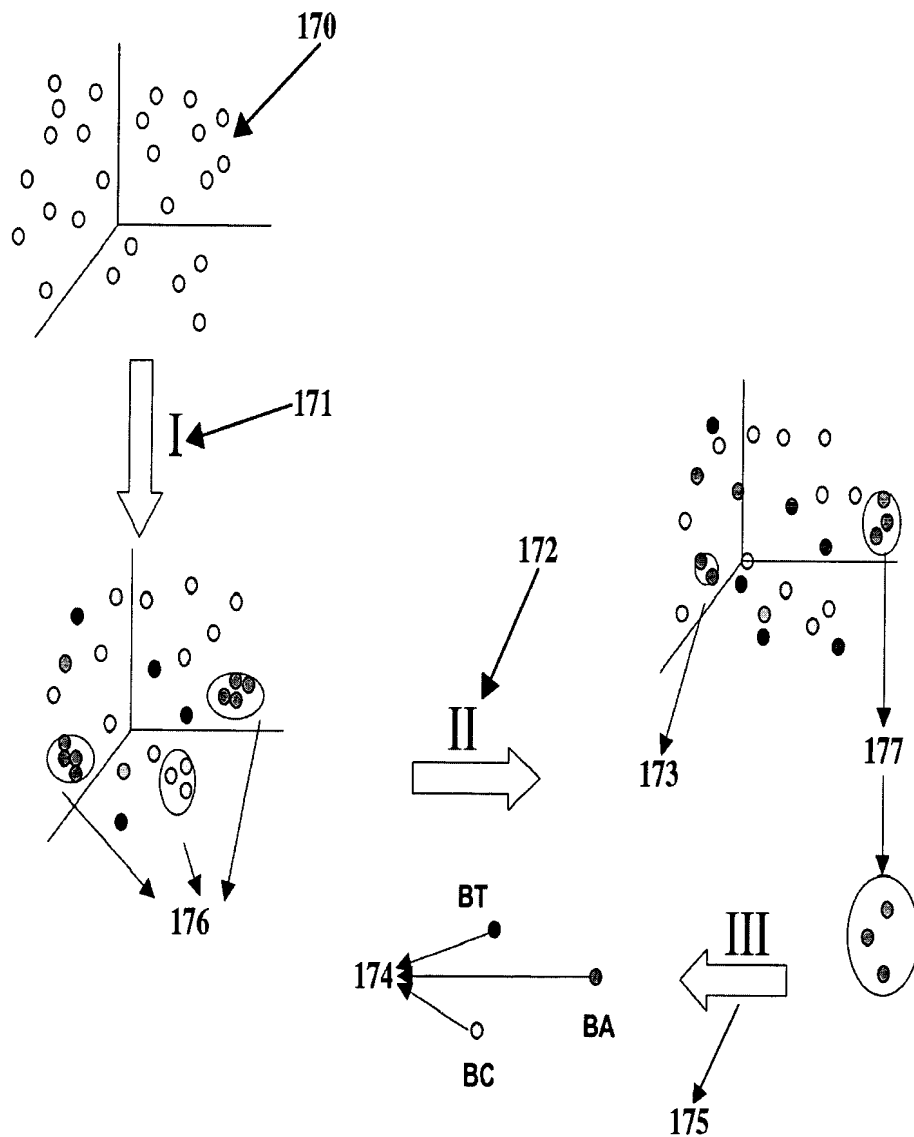


Figure 18

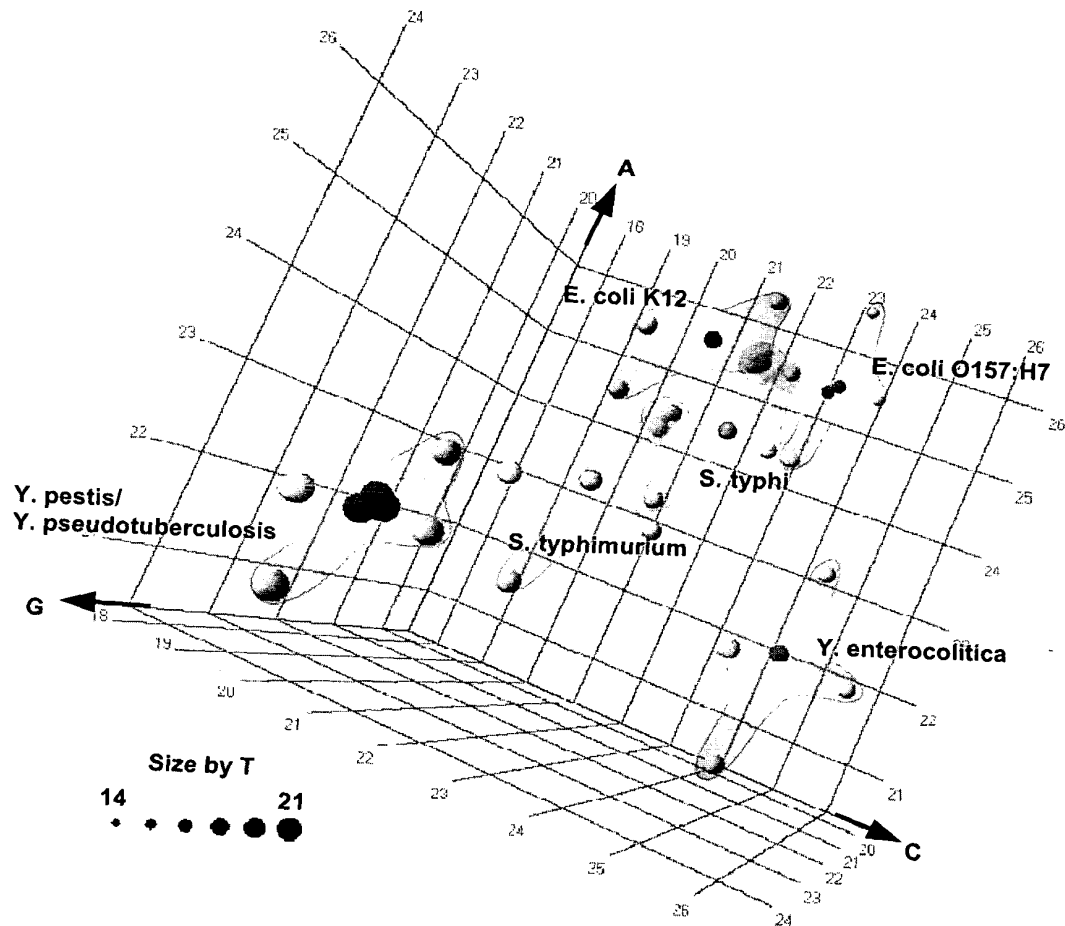
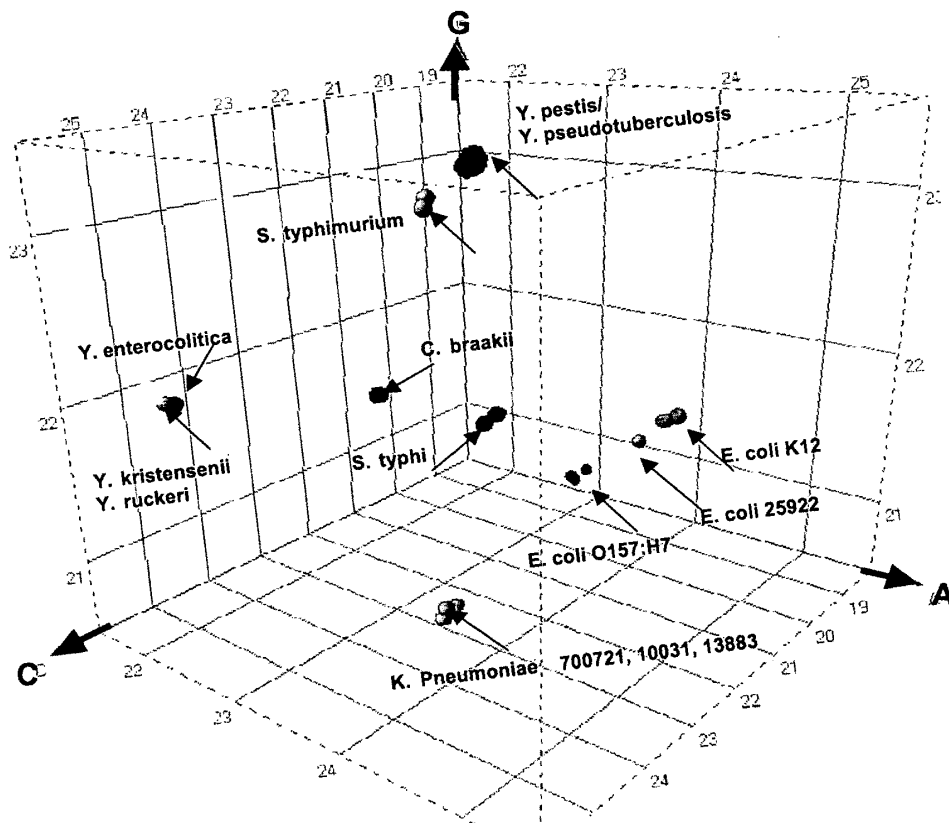


Figure 19



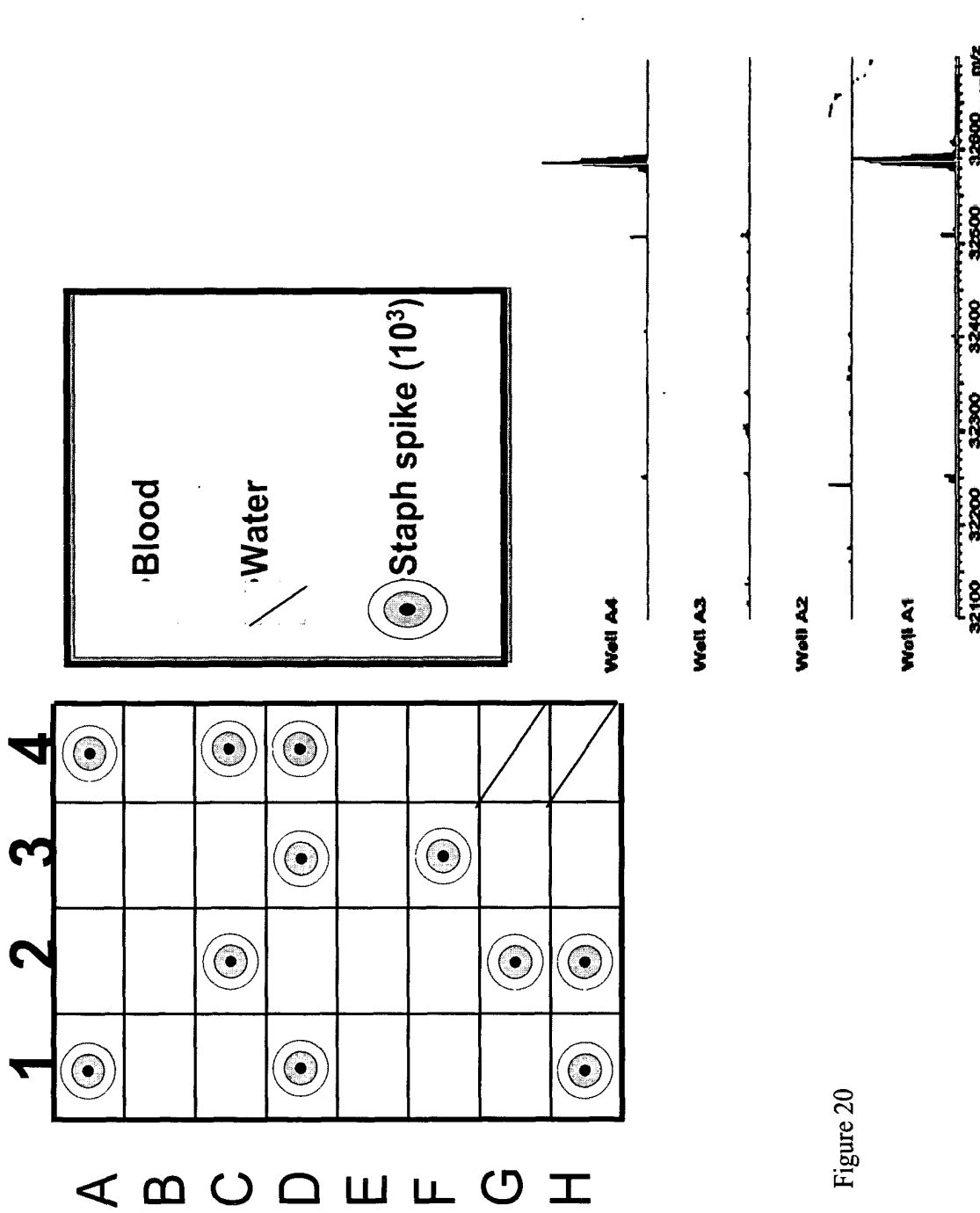


Figure 20

Figure 21

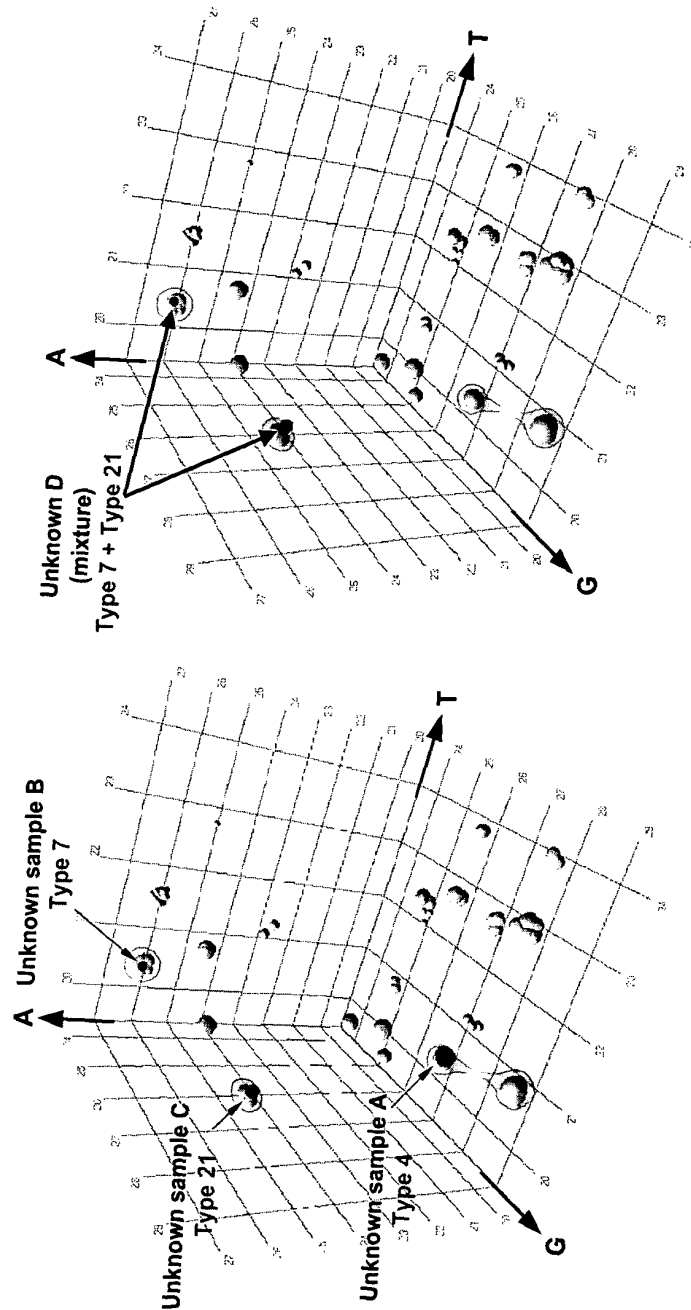


Figure 22

Universal Survey/Drill-Down Process

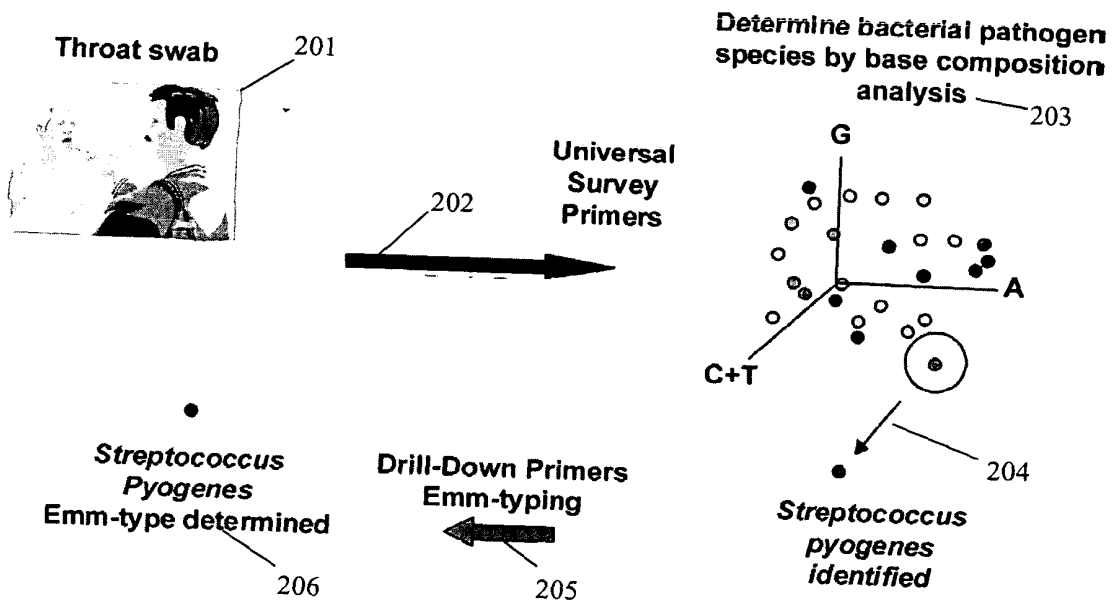


Figure 23
 Base Composition Signatures from primer pair 14 (16S rRNA)

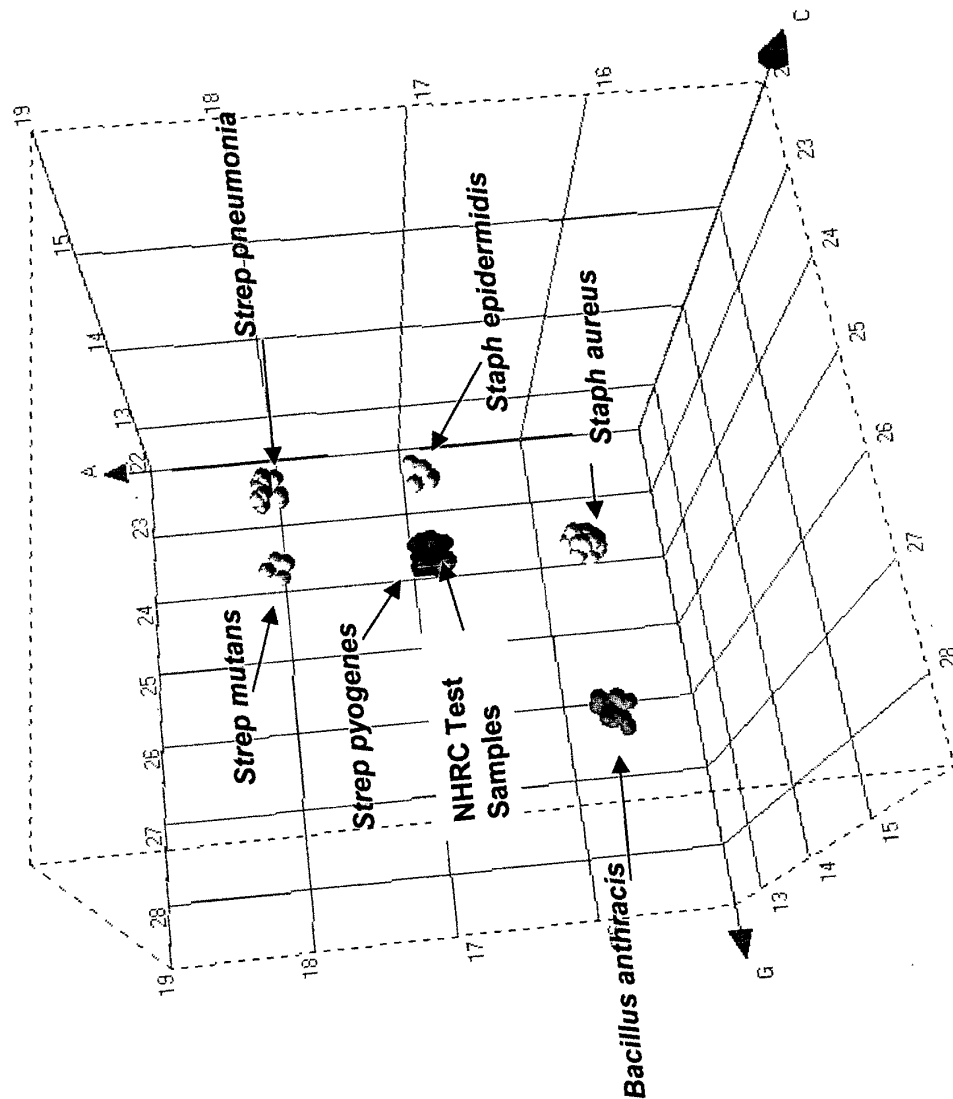
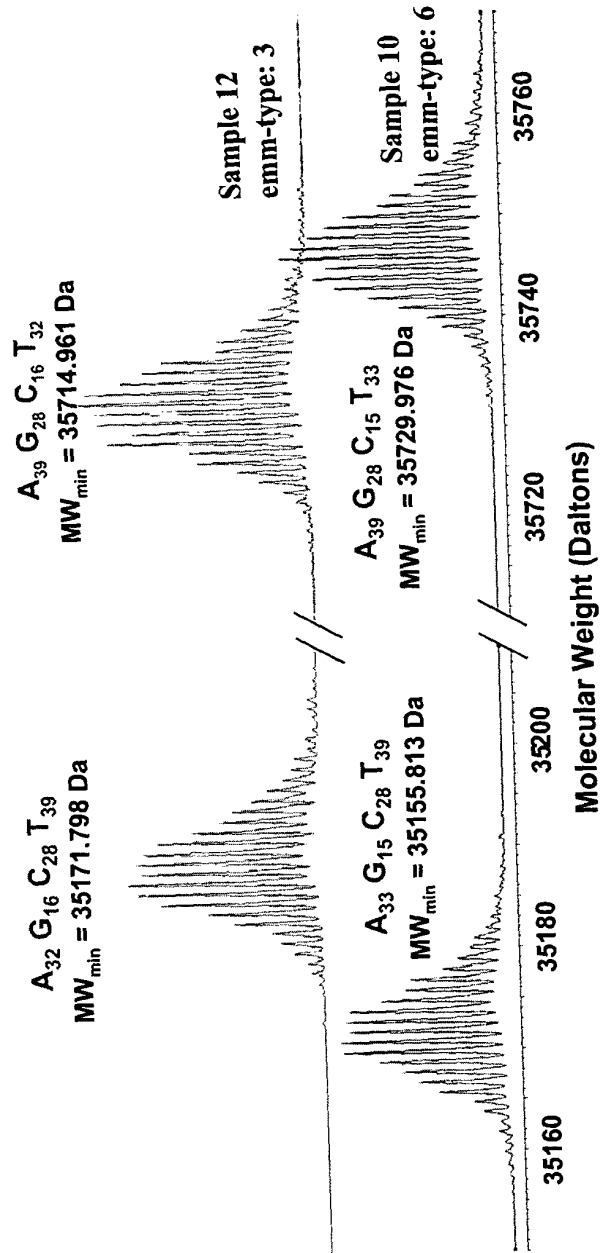


Figure 24



	EMM-type determination			Base Compositions				
	Sample	MLST- <i>emm</i> ₁	Sequencing- <i>emm</i>	<i>mutL</i>	<i>mutS</i>	<i>xat</i>	<i>valL</i>	<i>nki</i>
Outbreak Samples	1	3	3	A39 G25 C20 T34	A38 G27 C23 T33	A30 G36 C20 T36	A40 G29 C19 T31	A32 G35 C17 T32
	2	3	3	A39 G25 C20 T34	A38 G27 C23 T33	A30 G36 C20 T36	A40 G29 C19 T31	A32 G35 C17 T32
	3	3	3	A39 G25 C20 T34	A38 G27 C23 T33	A30 G36 C20 T36	A40 G29 C19 T31	A32 G35 C17 T32
	4	3	3	A39 G25 C20 T34	A38 G27 C23 T33	A30 G36 C20 T36	A40 G29 C19 T31	A32 G35 C17 T32
	5	3	3	A39 G25 C20 T34	A38 G27 C23 T33	A30 G36 C20 T36	A40 G29 C19 T31	A32 G35 C17 T32
	6	3	3	A39 G25 C20 T34	A38 G27 C23 T33	A30 G36 C20 T36	A40 G29 C19 T31	A32 G35 C17 T32
	7	3	3	A39 G25 C20 T34	A38 G27 C23 T33	A30 G36 C20 T36	A40 G29 C19 T31	A32 G35 C17 T32
	8	3	3	A39 G25 C20 T34	A38 G27 C23 T33	A30 G36 C20 T36	A40 G29 C19 T31	A32 G35 C17 T32
	9	3	3	A39 G25 C20 T34	A38 G27 C23 T33	A30 G36 C20 T36	A40 G29 C19 T31	A32 G35 C17 T32
	10	6	6	A40 G24 C20 T34	A38 G27 C23 T33	A30 G36 C20 T36	A40 G29 C19 T31	A31 G35 C17 T33
	11	3	3	A39 G25 C20 T34	A38 G27 C23 T33	A30 G36 C20 T36	A40 G29 C19 T31	A32 G35 C17 T32
	12	3	3	A39 G25 C20 T34	A38 G27 C23 T33	A30 G36 C20 T36	A40 G29 C19 T31	A32 G35 C17 T32
	13	3	3	A39 G25 C20 T34	A38 G27 C23 T33	A30 G36 C20 T36	A40 G29 C19 T31	A32 G35 C17 T32
	14	3	3	A39 G25 C20 T34	A38 G27 C23 T33	A30 G36 C20 T36	A40 G29 C19 T31	A32 G35 C17 T32
	15	3	3	A39 G25 C20 T34	A38 G27 C23 T33	A30 G36 C20 T36	A40 G29 C19 T31	A32 G35 C17 T32
	16	3	3	A39 G25 C20 T34	A38 G27 C23 T33	A30 G36 C20 T36	A40 G29 C19 T31	A32 G35 C17 T32
	17	3	3	A39 G25 C20 T34	A38 G27 C23 T33	A30 G36 C20 T36	A40 G29 C19 T31	A32 G35 C17 T32
	18	3	3	A39 G25 C20 T34	A38 G27 C23 T33	A30 G36 C20 T36	A40 G29 C19 T31	A32 G35 C17 T32
	19	6	6	A40 G24 C20 T34	A38 G27 C23 T33	A30 G36 C20 T36	A40 G29 C19 T31	A31 G35 C17 T33
	20	3	3	A39 G25 C20 T34	A38 G27 C23 T33	A30 G36 C20 T36	A40 G29 C19 T31	A32 G35 C17 T32
	21	3	3	A39 G25 C20 T34	A38 G27 C23 T33	A30 G36 C20 T36	A40 G29 C19 T31	A32 G35 C17 T32
	22	3	3	A39 G25 C20 T34	A38 G27 C23 T33	A30 G36 C20 T36	A40 G29 C19 T31	A32 G35 C17 T32
	23	3	3	A39 G25 C20 T34	A38 G27 C23 T33	A30 G36 C20 T36	A40 G29 C19 T31	A32 G35 C17 T32
	24	3	3	A39 G25 C20 T34	A38 G27 C23 T33	A30 G36 C20 T36	A40 G29 C19 T31	A32 G35 C17 T32
	25	3	3	A39 G25 C20 T34	A38 G27 C23 T33	A30 G36 C20 T36	A40 G29 C19 T31	A32 G35 C17 T32
	26	3	3	A39 G25 C20 T34	A38 G27 C23 T33	A30 G36 C20 T36	A40 G29 C19 T31	A32 G35 C17 T32
	27	3	3	A39 G25 C20 T34	A38 G27 C23 T33	A30 G36 C20 T36	A40 G29 C19 T31	A32 G35 C17 T32
	28	3	3	A39 G25 C20 T34	A38 G27 C23 T33	A30 G36 C20 T36	A40 G29 C19 T31	A32 G35 C17 T32
	29	3	3	A39 G25 C20 T34	A38 G27 C23 T33	A30 G36 C20 T36	A40 G29 C19 T31	A32 G35 C17 T32
	30	3	3	A39 G25 C20 T34	A38 G27 C23 T33	A30 G36 C20 T36	A40 G29 C19 T31	A32 G35 C17 T32
	31	3	3	A39 G25 C20 T34	A38 G27 C23 T33	A30 G36 C20 T36	A40 G29 C19 T31	A32 G35 C17 T32
	32	3	3	A39 G25 C20 T34	A38 G27 C23 T33	A30 G36 C20 T36	A40 G29 C19 T31	A32 G35 C17 T32
	33	3	3	A39 G25 C20 T34	A38 G27 C23 T33	A30 G36 C20 T36	A40 G29 C19 T31	A32 G35 C17 T32
	34	28	28	A39 G25 C20 T34	A38 G27 C23 T33	A30 G36 C20 T36	A41 G28 C18 T32	A30 G36 C18 T32
	35	3	3	A39 G25 C20 T34	A38 G27 C23 T33	A30 G36 C20 T36	A40 G29 C19 T31	A32 G35 C17 T32
	36	3	3	A39 G25 C20 T34	A38 G27 C23 T33	A30 G36 C20 T36	A40 G29 C19 T31	A32 G35 C17 T32
	37	3	3	A39 G25 C20 T34	A38 G27 C23 T33	A30 G36 C20 T36	A40 G29 C19 T31	A32 G35 C17 T32
	38	3	3	A39 G25 C20 T34	A38 G27 C23 T33	A30 G36 C20 T36	A40 G29 C1	

Figure 26

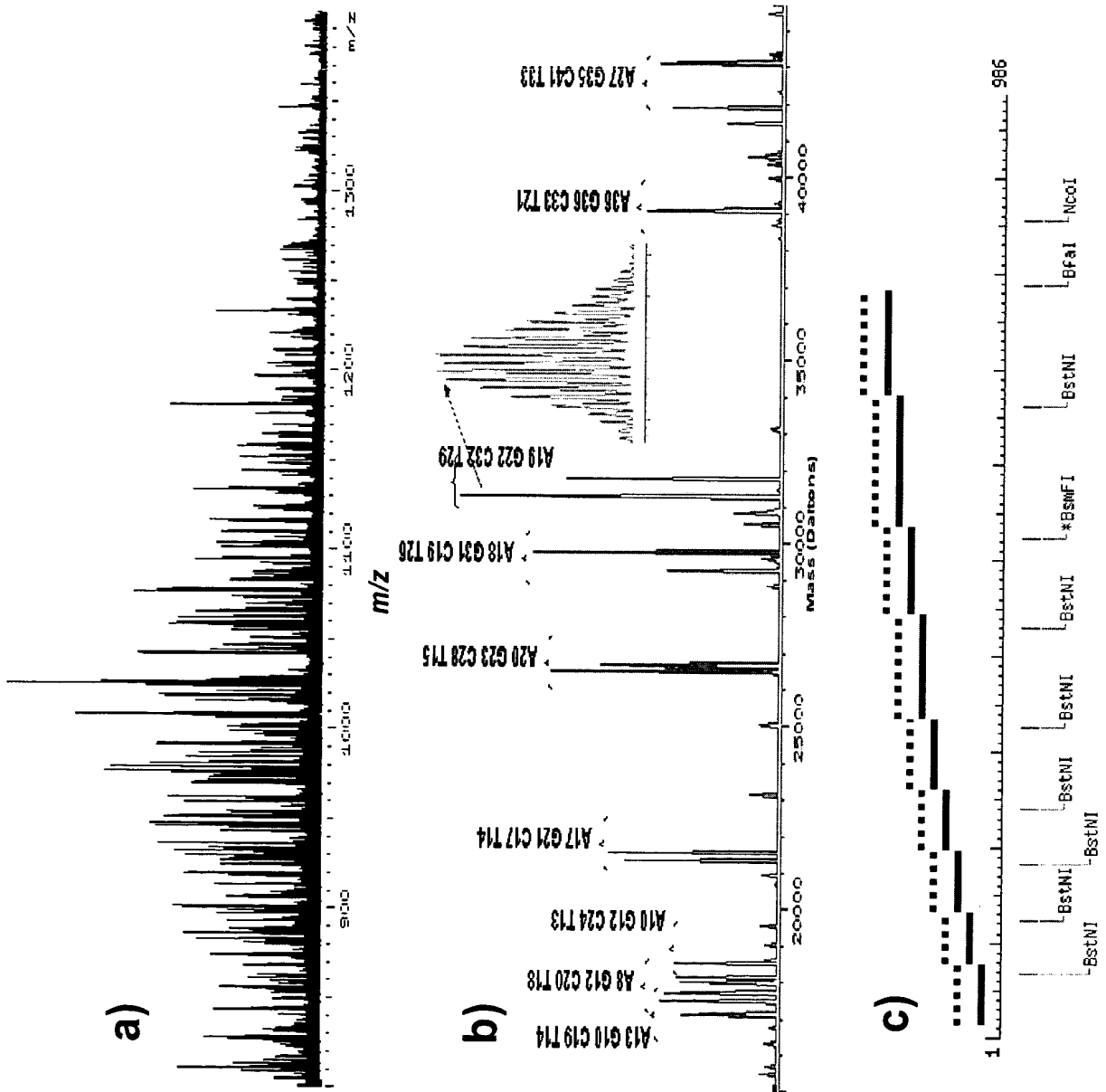


Figure 27

